

Hidenobu FUKUMASA

Appl. No. 09/914,009

Response to Office Action dated June 8, 2005

**AMENDMENTS TO THE SPECIFICATION:**

Please replace the paragraph beginning on page 17, line 12 with the following amended paragraph:

Two switches 403 and 404 in switching circuit 402 are adapted to operate in accordance with a control signal. When a signal which alternately changes between 0 and 1, namely once every two clock units, is supplied as the control signal, the inputs are directly output for even-numbered chips and the inputs  $D_i$  and  $D_q$  are permuted for odd-numbered chips. For the latter case, the sign of data  $D_i$  is inverted by multiplier 401 and input. The output from switching circuit 402 is always shifted in phase by 45 degrees relative to that of the first embodiment (see Fig. 7). Also in this case, the signal continuously changes in phase by 90 degrees if no change occurs in data, so that the same effect as in the first embodiment can be obtained.